



Attack of mistletoe on *Prunus armeriana* Linn. in Uttarkashi District of Uttarakhand

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General Note



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ABSTRACT

Prunus armeriana Linn. is a very useful oil seed producing tree species. Species is found in hilly parts of the Uttarkashi district of Uttarakhand region. A survey was conducted in Rupin, Supin and Sakri range of the district. It was reported that tree species is attacked by mistletoe. All the mature trees were invariably infested by the mistletoe. Species is identified as *Dendrophthoe falcata* (L. f.). Suitable preventive measures were suggested to prevent the spread of mistletoe.

Key words: Mistletoe, Partial parasite

1. INTRODUCTION

The wild apricot (*Prunus armeniaca* Linn.) is an important tree borne Oil seed of mid hills and dry temperate regions of the country. Wild apricot belongs to the family Rosaceae and sub-family Prunoidea. It is a deciduous plant of continental region with cold winters and can tolerate temperature as low as - 30°C. It is mostly grown in the Mediterranean countries, Central Asia, Russia, USA, Iran, Iraq, Afganistan, Pakistan, Syria and Turkey. In India, it is mainly cultivated in North West Hills Region, Jammu & Kashmir, Himachal Pradesh and Uttarakhand and also in North Eastern Hills Region comprising the state of Arunachal Pradesh, Nagaland, Meghalaya, Sikkim and Manipur. The cultivated apricot has its origin in North-Eastern China, whereas, wild apricot appears to be indigenous to India. Wild apricot locally called Chullu is found in the dry temperate regions of North-Western Himalayas particularly in the valleys of Jammu & Kashmir (especially Ladakh), Chenab; Kullu and Shimla regions of H.P. and Garhwal hills of Uttarakhand at altitudes up to 3000 m. It has been used in folk medicine for number diseases. Bark is used as an astringent for skin. Kernel paste is used to heal vaginal infections and its oil is used in cosmetics to protect skin from UV radiations (Raj *et al.*, 2012).

Mistletoes are destructive partial parasites. They attack different types of trees and shrubs and causes great damage in both natural and plantation forests, orchards and parks throughout world. They severely damage their hosts in various ways.

2. MATERIAL AND METHODS

Uttarakashi is a largest district of Uttarakhand state. A floristic survey of Rupin, Supin and Sakri range of Govind Pashu Vihar National Park and Wildlife Sanctuary, Uttarakhand was carried out in June 2017. Mistletoes infestations on wild apricot tree were found. It is locally known as Banda.



Figure 1 Infestation of mistletoe on mature Apricot tree

3. RESULTS AND DISCUSSION

Extent of Attack of Mistletoe

Prunus armeriaca is invariably found in the area. It was found that in the *P. armeriaca* is infested by the mistletoes. Species was identified as *Dendrophthoe falcata* (L. f.) Etting.

Species description

Perennial, parasite dichotomously branched; branches woody. Leaves elliptic-oblong, obovate or ovate-lanceolate, 5-15 x 2.5-8 cm, obtuse or acute at apex, cordate to cuneate at base, coriaceous, sessile or shortly petiolate. Flower in 5-10 cm long racemes, often clustered in leafy axils; pedicels 2.5 cm long; bracts small. Calyx ca 0.5 cm long, entire or obscurely toothed. Corolla bright red; lobes reflexed; tube 3-5 cm long. Drupes ovoid-oblong, 6-7 mm long, bright red, crowned by persistent calyx-base.

Various researchers have reported the attack of mistletoe on economically tree species (Hawksworth, 1961; Pundir, 1979; Gill and Hawksworth, 1983; Ghosh *et al.*, 1984). In the present study, infestation was observed on branches of *P. ameriaca* trees wherever it was found. Infestation was seen in initial stage, however, in few trees, it was in advance stage.



Figure 2 Flowering twig of *Dendrophthoe falcate* (L. f.) Etting

4. CONCLUSION

Prunus armeriana Linn., is one important tree of the rural communities in the area. However, due to infestation by the mistletoe, quality and quantity of seeds may be affected. It is, therefore, essential that proper management strategies should be adopted to check spread of mistletoes. Manually removal of mistletoes would be helpful in increasing yield. New plantation of *P. armeriaca* should be raised through mistletoes resistant material. Therefore, genetic improvement through selection of mistletoes resistant clones should be worked out.

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